

In search of life, researchers find islet made of dead corals

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Three months ago, a team of scientists from a Chennai laboratory ventured into the Indian Ocean to survey corals but chanced upon a small mass of land 5km away from the mainland in the Gulf of Mannar.

When the team of oceanographers from the National Centre for Coastal Research (NCCR), which went to the sea nearly a decade after its previous trip, came ashore, it scoured through satellite images of the region for the past decade and realized that it has discovered an islet that had formed two years ago. The finding was rather ironic as the scientists had gone to monitor the health of corals and ended up stumbling upon an island composed mainly of dead corals but on which small polyps, plants grow, and birds and reef fish take shelter.

The islet, that measures 50mx50m, was around 800m from Manoliputti Island, one of the 21 islands in the Gulf of Mannar, and about 5km from Mandapam. Rough waves and wind patterns could have played a role in the movement and accumulation of the dead corals and the sandbar around it.

"Usually, islands in the Indian Ocean region, particularly those in the Andaman and Lakshadweep region, form due to tectonic activity. It is rather peculiar to see islets formed entirely of dead corals. We must monitor the seasonal changes for a year to understand its dynamics. It may grow further," said M V Ramanamurthy, director, NCCR.

Scientist Shanmugaraj, who led the team that conducted field measurements, said mound of dead corals measured around 50m in length and width and more than 1m was jutting out of the water during low tide. The

MID-SEA MARVEL

The islet was formed two years ago and has begun to support life, said oceanographers

CAUSES ON FORMATION

- > Waves from east, west, south and north converge at the mound
- > Around eight shallow water waves per minute hit the islet
- > Wind and wave energy could have transported dead corals
- > Corals could have drifted from Sri Lankan regions 20km away

INHABITANTS

Marine species and plants found around islet



- 1) 10 marine algae
- 2) Invertebrates such as unidentified sponges
- 3) Glass anemone shrimp
- 4) Stony corals
- 5) Bushy corals of varying colours
- 6) Pufferfish
- 7) Common sandpiper



WHERE & WHAT



5km from Mandapam



Max elevation during low tide 1.10m



800m from Manoliputti island, one of the 21 islands in the Gulf of Mannar

Islet approximately measures 50m X 50m

MONITORING

- > Through high resolution images from Cartosat 2E
- > Deploying equipment like GPS to track movement of the corals and the mound

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M V Ramanamurthy | DIRECTOR, NCCR

team spotted marks of spring tide, high tide and low tide with lateral view heights of 72cm, 68cm and 10cm respectively. Sand has begun to accumulate around the mound. The sandbar around the islet was 110m long and 18.6m wide.

"Through satellite images, we found that the islet may have been formed in 2017 and exposed in 2018. Images from 2007, 2009 or 2013 showed no sign of this mound," he said.

Shanmugaraj, who has been monitoring and restor-

ing corals in the region for more than a decade, said the wave patterns in this region were irregular and hit the islet from all four corners. Mass coral bleaching events in the past few years, including a third event in 2016-17, could have played a role. Though corals in the Gulf of Mannar region have shown signs of recovery, various studies have shown that nearly 16% have died in the event.

"There is also a possibility that these dead corals could

have drifted from Sri Lankan waters 20km away. Nothing is clear and requires a detailed study," he said.

Since the discovery, life has started to form around the land. There were marine algae and some unidentified sponges. "There were reef fishes and birds like common sandpiper," Shanmugaraj said. NCCR has planned to deploy instruments and monitor the islet through high resolution images captured from remote sensing Indian satellite Cartosat 2E.